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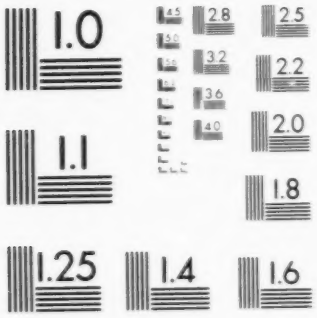

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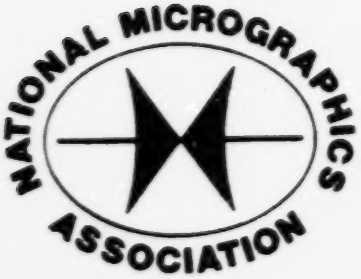

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FINANCING UNIVERSITIES IN NORTH AMERICA

CAN ONTARIO COMPETE?

COUNCIL OF ONTARIO UNIVERSITIES

CONSEIL DES UNIVERSITÉS DE L'ONTARIO

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FINANCING UNIVERSITIES IN NORTH AMERICA: CAN ONTARIO COMPETE?

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October 1988

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Executive Summary

Until the late 1950s, Canada's wealth was largely generated by the exploitation of natural resources and in the branch plant production lines of large American corporations. In this environment, universities were seen as contributing only modestly to the economic development of the country. Few were concerned that universities approached instruction and scholarship as genteel preoccupations. Most students in Canadian universities took courses from faculty trained in other countries. Basic research in Canada was conducted on a small scale. In terms of human and intellectual capital, Canada was a "debtor" nation.

As the Canadian economy matured in the 1960s, so too did the Canadian university community. Recognition of the value of a university education as an individual and national investment caused participation rates to climb and massive enrolment increases occurred. Graduate and professional programmes expanded so that it was no longer necessary to leave the country to take advanced studies. Research blossomed. Ontario universities led the way in these developments and the province emerged in the 1970s with a richly endowed and vital university community.

It now is generally recognized that Ontario must remain in the forefront of scientific and technological development and educational achievement if it is to maintain its competitive position in today's global economy. Ontario's universities make a major contribution to this province's competitiveness and they play a vital role in the development of highly skilled human resources. Their role in creating and sustaining a vibrant research and development infrastructure in this province, contributing and drawing from the global expansion of knowledge, is fundamental and unique.

To maintain and sustain Ontario's universities and to thereby maintain and sustain Ontario's competitive position requires a significant financial investment. This paper undertakes to assess the financial position of Ontario universities relative to that of comparable institutions in the United States. The study focuses primarily on ten doctoral-level institutions in Ontario and about 250 in the U.S. offering doctoral programmes across a range of academic disciplines. Data for 1985-86 for public and private institutions in the U.S. are presented both separately and in combined format.

University revenues vary widely by source and magnitude between institutions in Canada and the United States and, in the U.S., between private and public universities. In 1985-86, the revenue afforded public doctoral-level institutions in the United States was about 40 per cent ($5,100) more per full-time student than it was in Ontario. For private universities in the U.S. this revenue was about twice as much as for Ontario universities. By American standards, then, higher education in Ontario is significantly underfunded.

For public institutions in the U.S., the differences in level of revenue were largely attributable to:

- *state appropriations per full-time student which were about 35 per cent ($2,450) greater at U.S. universities than at provincially funded institutions in Ontario;*

- *federal grants per full-time student in the United States which were about 90 per cent or $1,300 greater than in Ontario; and*

- *tuition revenue per full-time student which was about 70 per cent or $1,425 greater at institutions in the U.S. than at Ontario institutions.*

While state appropriations to private institutions in the U.S. are negligible, tuition revenue per student was significantly higher, by about $10,500, than in Ontario. As well, private institutions in the U.S. attract significant levels of federal support, about 260 per cent ($3,900) greater than is the case in Ontario. The difference in federal funding reflects not only a stronger commitment to basic research in the U.S., but also a significantly higher level of commitment to the support of research overhead costs than is the case in Ontario.

Significant differences were also apparent between the expenditure patterns of U.S. and Ontario institutions. For public institutions, these differences arose largely in the area of research (reflecting higher levels of research revenue) but more significantly in those areas that support the teaching and research functions. Academic support (libraries, museums, academic computing and academic administration) expenditure levels were significantly higher in U.S. institutions - by 92 per cent ($840). Expenditures for student services, including counselling, financial aid administration, health services, admissions and records, were also significantly higher in the U.S. - by about 300 per cent ($500) - as were expenditures for administration (75 per cent or $625) and plant operations (35 percent or $400). U.S. universities provide considerably more support to their teaching and research operations than do universities in Ontario.

In terms of the competitive position of Ontario universities, recent evidence suggests a significant upward trend in the level of support for higher education in the U.S, a trend unfortunately not matched in Ontario. Between 1982-83 and 1986-87, state appropriations per student in some American jurisdictions grew by 35-40 per cent. During the same period, grants per student in Ontario have barely kept pace with inflation.

FINANCING UNIVERSITIES IN NORTH AMERICA: CAN ONTARIO COMPETE?

> "The world economy has been undergoing a major restructuring and the impact on Ontario has been significant....It is essential that Ontario maintain and, indeed, increase its share of world trade and investment. To do so, the Government must encourage the development of areas that are crucial to our international competitiveness, including technology, and education." Robert F. Nixon, Treasurer of Ontario and Minister of Economics, 1987 Ontario Budget, pp. 2-3.

1. INTRODUCTION

It is increasingly recognized that if Ontario is to maintain its competitive position in today's global economy, it must remain in the forefront of scientific and technological development and educational achievement. Ontario's universities make a major contribution to this province's competitiveness. They play a vital role in the development of highly skilled human resources. Their role in creating and sustaining a vibrant research enterprise in this province, contributing to and drawing from the global expansion of knowledge, is fundamental and unique.

This study undertakes to assess the financial position of Ontario universities relative to that of comparable institutions in the United States. Much of the information presented will focus on Ontario's most important neighbours, the large, industrial states of the Great Lakes region of the United States and on the three most populous states outside this region - California, Texas and Florida. Together, these eleven states contain a majority of the people living in the United States - more, in fact, than live in the other 39 states combined.

For purposes of comparability, the study focuses largely on universities offering doctoral programmes across a range of academic disciplines - 10 institutions in Ontario and about 250 in the U.S. The study excludes the hundreds of two-year academic and comprehensive colleges, two-year occupational colleges, and other professional and specialized institutions which are similar to Colleges of Applied Arts and Technology in Ontario. There are also hundreds of comprehensive and general baccalaureate institutions in the United States where the concentration is on undergraduate instruction with limited graduate teaching, limited research capability, and a strongly local orientation. While not excluded from the analysis entirely, these institutions will serve largely as comparators for some of the smaller institutions in Ontario.

2. METHODOLOGY

Comparing post-secondary institutions within a single jurisdiction is difficult owing to variations in size, programme breadth, geographic location, age, and a host of other factors. Comparisons among universities in different jurisdictions are even more difficult.

Fortunately, in both the province of Ontario and in the United States, data bases exist which provide the initial advantage of internal consistency.[1] To make these data more comparable, however, this analysis is restricted to those funds which in American terminology are termed "educational and general" revenues and expenditures. These revenues and expenditures encompass both teaching and research activity at universities.

In the Canadian context, teaching and research revenue and expenditure are normally separated. In this paper, they have been combined to make Ontario data comparable with available U.S data. Moreover, because research overheads flow with federal research monies in the U.S., their inclusion for comparative purposes is essential. In Canada, research overheads, although not explicitly recognized, are assumed to derive from provincial operating grants. Despite these complications in comparative analysis, there is a compelling case for combining teaching and research activity in a paper that looks at the international competitiveness of this province's universities. Policy makers in Ontario cannot ignore the level of research funding in our universities and the provision of overhead support for research merely because, in this country, research is assumed to be an activity wholly funded by the federal government.

To further improve comparability, some categories of revenue and expense data have been eliminated. For example, on the revenue side, the American data, which are provided through the Higher Education General Information Survey (HEGIS), include Pell grants, a form of student aid derived from the U.S federal government. In Canada, grants of this type would not be reported by universities because the money goes directly to student recipients. Since Pell grants are also included in the HEGIS data as expenditures for scholarships and fellowships, this entire spending category is not comparable with Canadian data. Other reporting inconsistencies in this area are also apparent between the two countries, arising particularly from the existence of private institutions in the U.S. This led to a decision that the entire student aid function be excluded from the analysis.

1

Council of Finance Officers - Universities of Ontario, Financial Report of Ontario Universities; Ontario Ministry of Colleges and Universities, University Affairs Report (UAR); Higher Education General Information Survey (HEGIS) available from the National Center for Higher Education Management Systems (NCHEMS) and the National Data Service for Higher Education. See the Appendix for further detail.

Similarly, the revenue sources shown in HEGIS as deriving from "other sources" and from sales of services and educational activities were eliminated because of different accounting practices. Financial information published on Ontario universities is collected on the basis of "net" reporting; i.e. revenue derived from outside the university from sales, rentals or the provision of services are netted out of both the revenue and expense data. The net reporting approach is used to constrain the data to reflect the core operations of the university by eliminating the gross revenues and expenditures of peripheral activities. On the expenditure side, this means eliminating the public service category from the HEGIS data. In the United States, this category is used to describe a whole series of unrelated activities including soil testing, agricultural extension services, and public broadcasting. In Ontario, accounting practices would dictate that these programmes be kept quite separate from the core activities of instruction and research. They would be reported "net" and the American information must be altered to make the two data bases comparable.

Yet another problem area is the HEGIS expenditure category "mandatory transfers". This category includes provisions for debt service on educational plant and transfers to loan funds required to match outside gifts or grants. Given the variety of ways such transfers are handled in both jurisdictions, it was considered prudent to eliminate them from the analysis altogether.

What remains in the U.S. data once these selected HEGIS categories are eliminated are the following revenue sources:

Tuition and fees
State government appropriations
Federal government grants and contracts
(excluding Pell grants)
Private gifts, grants and contracts
Endowment income

The following U.S. expenditure categories also remain:

Instruction
Research
Academic support
Student services
Institutional support
Operation and maintenance of plant

For purposes of this analysis, the data collected by the Council of Finance Officers - Universities of Ontario, have been adapted to these HEGIS categories. For example, the HEGIS category "Tuition and Fees" includes

revenue reported by COFO-UO in both the "Operating" and "Other (Non-Credit)" funds from tuition fees, both credit and non-credit, and miscellaneous fees. The HEGIS category, "State Government Appropriations", includes, for Ontario, all government grants and contracts, whether from the Ministry of Colleges and Universities or from other agencies of the Ontario government, reported in the "Operating" and "Other (Non-Credit)" funds.

Similar adjustments have been made on the expenditure side. For example, the HEGIS category "Instruction" includes all expenses of the Other (Non-Credit) fund, those Operating expenses labelled by COFO-UO as instruction and research (both medical and non-medical), and a share of the expenses of the Trust and Endowment fund. That share was estimated to include about half of the Trust and Endowment fund expenses for salaries and wages, employee benefits, equipment and furniture, operational supplies and expenses, utilities, renovations, alterations and major repairs, externally contracted services, and miscellaneous expenses. A complete list of these groupings of COFO-UO categories within the HEGIS definitions is shown in the Appendix.

There are several other problems in comparing American and Ontario financial data which are not associated with either of the two data bases. The most obvious of these is the differential value of the American and Canadian currencies. The U.S. and Canadian dollars are rarely at par with one another and the exchange rate is constantly changing. In recent years, the U.S. dollar has had the higher value. For example, in 1984-85, the Canadian dollar had an average value of 75.46 cents U.S. In 1985-86, the Canadian dollar was worth, on average, 72.48 cents U.S.

In this study, all data are stated in Canadian dollars. For the purposes of conversion, the average exchange rate for the fiscal year was employed. No attempt has been made to compare the relative purchasing power of the two currencies. Among other considerations, it is apparent that the purchasing power of each currency would vary significantly within each jurisdiction. For example, the high cost of living in Toronto or New York City would reduce the purchasing power of both currencies relative to their purchasing power in Regina, Saskatchewan or Fargo, North Dakota.

Another problem in comparing Ontario with the United States arises from the presence of a significant number of private institutions in the U.S. About one-third of university students in the U.S. are enrolled at such institutions. Clearly, they make a significant contribution to higher education in that country and to its international competitiveness. Because our traditions are different, there are no comparable institutions in Ontario. Nor are there likely to be. Nonetheless, Ontario policy makers must not ignore the contribution of these institutions in other jurisdictions. In the present analysis, data for public and private institutions in the U.S. are presented both

separately and in combined format.

A further problem in inter-jurisdictional comparisons arises from the way in which students are counted. Ideally, both full-time and part-time students taking credit courses could be converted into full-time equivalent enrolment. As well, students taking courses in each term of the school year - fall, winter, spring, summer - should be taken into account in calculating FTE enrolment. Unfortunately, the American data do not meet these criteria. "The HEGIS fall enrolment survey does not establish a standard definition for 'full-time equivalent student'. To the extent that institutions use different formulas, their FTE enrolment data lack comparability.... Further problems are caused because not all institutions count enrolments on the same calendar date. Also, the enrolment count is for the fall term and not the entire year."[2]

Finally, one must note structural differences in the organization of higher education across jurisdictions. For example, a student in Ontario might spend 13 years in elementary and secondary school before spending three years in university for a pass B.A. or four years for an Honours B.A. A similar student in Quebec would have to spend 11 years in elementary and secondary school, two years in a CEGEP, and three years in university for either a pass B.A. or an Honours B.A. In the United States, a typical student would spend 12 years in elementary and secondary school and four years in university (two years in "lower division" and two years in "upper division") to achieve the same academic qualification. Although these structural differences affect comparative costs between jurisdictions, no attempt is made in this analysis to compensate for the differences. All other things being equal, however, one would expect U.S. costs per student to be somewhat lower than those in Ontario since a larger proportion of instruction there is provided in the "lower division".

3. COMPARISONS OF REVENUE

University revenues vary widely by source and magnitude between institutions in Canada and the United States and, among the latter, between private and public universities. Table 1 looks at doctoral level institutions in Ontario and the United States by volume of revenue per student for 1985-86. Comparisons are made for tuition fees, state/provincial appropriations/grants, federal grants, gifts, and endowment income. Table 2 presents the same data relative to the total for the selected Ontario universities. Figures 1, 2 and 3 graphically illustrate the differences between Ontario universities and American public and private universities respectively.

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2 National Center for Higher Education Management Systems, Higher Education Financing in the Fifty States: Interstate Comparisons, Fiscal Year 1984, p. 540

Significant differences can be summarized as follows:

- In 1985-86, tuition revenue per full-time student was about 70 per cent ($1,425) greater at public doctoral institutions in the U.S. than at comparable institutions in Ontario. Tuition revenue per student at private institutions was significantly higher (about $10,400) than in Ontario.

- State appropriations per full-time student were insignificant in the case of private universities but were about 35% ($2,450) greater at public universities than in Ontario.

- Federal grants per full-time student in the United States were about 90 per cent ($1,300) greater at public institutions and about 260 per cent ($3,900) greater at private institutions than in Ontario. The average federal grant revenue per student for all doctoral institutions in the U.S. was 140 per cent ($2,050) greater than for comparable institutions in Ontario.

- Gifts from individuals and corporations per full-time student were only slightly higher (10 per cent or $100) at public universities in the United States than in Ontario. Private institutions in the U.S. rely heavily on income from donations, attracting three times as much from this source as do Ontario institutions.

- Endowment income per full-time student was less at public universities in the U.S. than in Ontario, but significantly higher at private universities.

Overall, these five sources of revenue afforded public doctoral institutions in the United States about 40 per cent ($5,100) more per full-time student than universities in Ontario. Private universities enjoyed substantially greater revenues - about twice as much as their Ontario counterparts. The average for all doctoral institutions in the U.S. in 1985-86 exceeded the Ontario average by 58 per cent or about $7,000 per student. By American standards, then, Ontario universities are significantly underfunded.

However, the U.S. national averages cited above cloud some significant differences between individual states and Ontario. For example, in California, public doctoral universities receive state appropriations per student which are almost twice as high and federal grants which are over three times the level afforded to institutions in Ontario.

When individual institutions are compared, similar significant differences occur. Table 3 examines the University of Toronto and eight American institutions of comparable size and programme range using data from

1984-85. These public institutions are among the largest universities in North America. For the revenue categories examined, the eight U.S. universities received, on average, about 50% more than the University of Toronto.

Every American institution in the comparator group enjoyed a higher level of income per student than did the University of Toronto. The greatest difference was in the category of government grants and contracts - mainly federal research funding - where the American universities received almost two and one-half times as much ($3,000 more) per full-time student as the University of Toronto. It should be noted that this difference reflects not only a stronger commitment to basic research in the United States but also a significantly higher level of commitment to support of the research infrastructure than is the case in Ontario.

Similar, although less dramatic, findings result when smaller Ontario universities are matched against American institutions of comparable size. Table 4 compares a medium-sized institution in Ontario, Queen's University, with two groups of medium-sized American universities. The first group match the selection criteria for comparative purposes but are not very well-known public universities. The second group include better known public and private institutions. Against the first group, Queen's fares not too badly, the overall difference being less than a third of the difference between Toronto and its comparator group. Against the second group, however, the picture is quite different. At Queen's, total revenue from all sources was less than one half of the average of this comparator group. The two public universities, both located in California, received state and local grants almost 80 and 150 per cent more than Queen's. They also enjoyed tuition revenue per student almost double the level experienced at Queen's.

Table 5 compares one of the smaller Ontario universities, Wilfrid Laurier, with a group of American institutions of comparable size. All are institutions enrolling more than 3,000 but fewer than 7,000 full-time students. For the revenue sources examined, the public institutions, on average, exceeded Wilfrid Laurier by almost 25 per cent. The differences were greatest in terms of tuition fees and government funding for research purposes - the former exceeding Wilfrid Laurier by about 40%, the latter being about ten times the amount received by Wilfrid Laurier. The private institutions in the comparator group were significantly better funded than either the American public institutions of comparable size or Wilfrid Laurier University with total revenue per full-time student exceeding Wilfrid Laurier's by about 60 per cent.

Table 6 displays data on five flagship U.S. universities, all of them private. Total revenues per student for these institutions are several orders of magnitude greater than those available to Ontario institutions.

4. COMPARISONS OF EXPENDITURE

Given that American universities, on average, received far more revenue in 1985-86 than Ontario universities, it should come as no surprise that universities in the United States also spent more money. This section of the study identifies how American universities spent their additional revenue.

Tables 7 to 10 present data on expenditure per full-time student for 1985-86 for public and private institutions in the United States and Ontario granting degrees at the doctoral level. Differences between the two jurisdictions are illustrated graphically in Figures 4 to 6. Data are presented for a number of functional areas in addition to instruction and research.

Significant differences between the expenditure patterns of U.S. and Ontario doctoral institutions are summarized as follows:

- Direct instructional expenditures at U.S. public institutions in 1985-86 exceeded similar expenditures here by 9 per cent ($575). The comparable figure for all U.S. doctoral institutions, both public and private, was 25 per cent ($1,500).

- Research expenditure per full time student was 47 per cent ($1,150) greater at public and 57 per cent ($1,400) greater at all institutions than in Ontario. It should be noted that while research revenue includes funds which flow for overhead purposes, expenditure data distribute overheads to the appropriate cost centres, e.g. administrative support, plant operations, etc. In addition, it is likely that U.S. research expenditures include some element of faculty salary expenditure that would be reported within the instructional function in the Ontario data. This would provide some explanation of why direct instructional expenditures are not as high in the U.S. as overall revenue data would lead one to expect.

- Levels of expenditure on academic support were significantly higher in U.S. institutions than in Ontario - 92 per cent ($840) higher at public and 110 per cent higher ($990) at all institutions. Academic support includes libraries, museums, academic computing and academic administration.

- In percentage terms, the most significant differences between the two jurisdictions occurred in the area of student services. This category includes counselling, financial aid administration, health services, admissions and records. U.S. public institutions spent about three times as much for these activities as did institutions in Ontario. The figure for all U.S. institutions exceeded the comparable figure in Ontario by 260 percent ($600).

- In the area of institutional support, U.S. per student expenditures exceeded those at Ontario institutions by 75 per cent ($625) at public institutions and 125 per cent ($1,050) at all institutions. Institutional support includes all forms of administration - financial management, administrative computing, etc.

- Finally, in the area of plant operations, expenditures at American institutions exceeded comparable expenditures in Ontario by one third ($410) at public and by 50 per cent ($625) at all institutions.

In no single functional area did the Ontario average for 1985-86 exceed the averages for either the private or the public universities in the United States. The variances between Ontario and the public universities are greatest in the case of California and Minnesota. Public universities in these two states have total educational and general expenditures per student twice as great as in Ontario.

5. CONCLUSIONS

Until the late 1950s, the university community across Canada could scarcely be viewed as having a significant role to play in the economic development of a country a significant part of whose wealth was generated in the exploitation of natural resources and in the branch plant production lines of large American corporations. During a long period of benign neglect, universities approached instruction and scholarship as genteel preoccupations. Students in Canadian universities took courses from faculty trained in other countries. The majority of those who pursued university studies beyond the baccalaureate level went abroad. Basic research in the country was conducted on a small scale. In terms of human and intellectual capital, Canada was a "debtor" nation.

As the Canadian economy matured in the 1960s so too did the Canadian university community. Recognition of the value of a university education as an individual and national investment caused participation rates to climb. Massive enrolment increases occurred. Graduate and professional programmes expanded so that it was no longer necessary to leave the country to take advanced studies. The research enterprise blossomed. Ontario universities led the way in these developments and the province emerged in the 1970s with a richly endowed and vital university community.

If, however, Ontario led the way in the 1960s, by the 1970s, for reasons that are beyond the scope of this paper, public policy makers in this province appeared to lose confidence in the initiative they had undertaken only a few years earlier. In the early 1970s, a capital construction freeze was imposed making it difficult if not impossible for Ontario universities to construct new buildings. Provincial government operating grants failed to keep pace with

either enrolment growth or inflation. By the beginning of the 1980s, provincial operating grants per student enrolled were the lowest in Canada. This situation continued through the first half of the decade. Between 1970-71 and 1984-85, government operating grants per student at Ontario universities dropped by about 25% in constant dollar terms.

Given funding decisions by the Ontario government which failed for more than a decade to adequately reflect the added costs of inflation, enrolment growth, or other financial pressures, it is hardly surprising to find institutions in other jurisdictions that enjoy better support. The evidence from this paper demonstrates clearly that American universities, in the mid 1980s, were substantially better funded than universities in Ontario. It is equally evident that this additional revenue provided them with a stronger infrastructure for all their essential activities.

Recognizing the significant and fundamental challenges to Ontario's future economic viability posed by the global acceleration of scientific and technological development, the universities of this province have argued for a concerted enrichment of their teaching and research enterprise. A new government in Ontario gave rise to a degree of optimism. Some tentative steps were taken to address the damage which had been done by a decade and more of underfunding. However, these efforts have not allowed us to gain ground on our major competition.

Recent evidence suggests a significant upward trend in the level of support for higher education in the U.S. Figure 7 shows that, between 1982-83 and 1986-87, state appropriations per student in some American jurisdictions grew by 35 to 40 per cent. During the same period, grants per student in Ontario have barely kept up with inflation. It is likely therefore that the differences in government support of universities identified in this paper have been enlarged.

FIGURE 1
REVENUE PER FULL-TIME ENROLMENT
PUBLIC DOCTORAL LEVEL UNIVERSITIES
1985-86

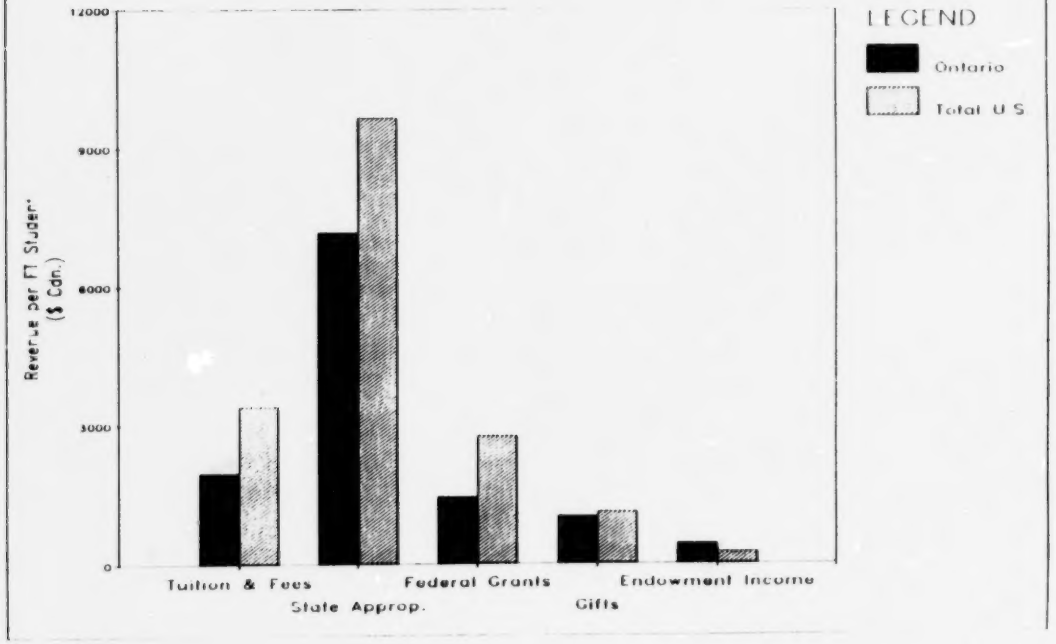


FIGURE 2
REVENUE PER FULL-TIME ENROLMENT
PRIVATE DOCTORAL LEVEL UNIVERSITIES
1985-86

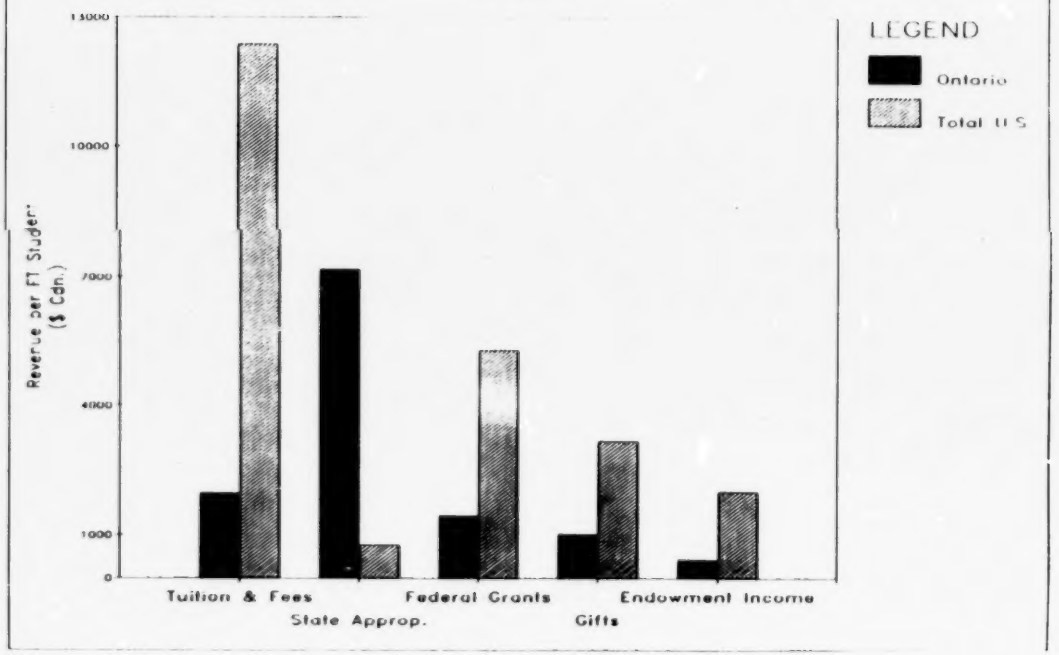


FIGURE 3
REVENUE PER FULL-TIME ENROLMENT
PUBLIC & PRIVATE DOCTORAL LEVEL UNIVERSITIES
1985-86

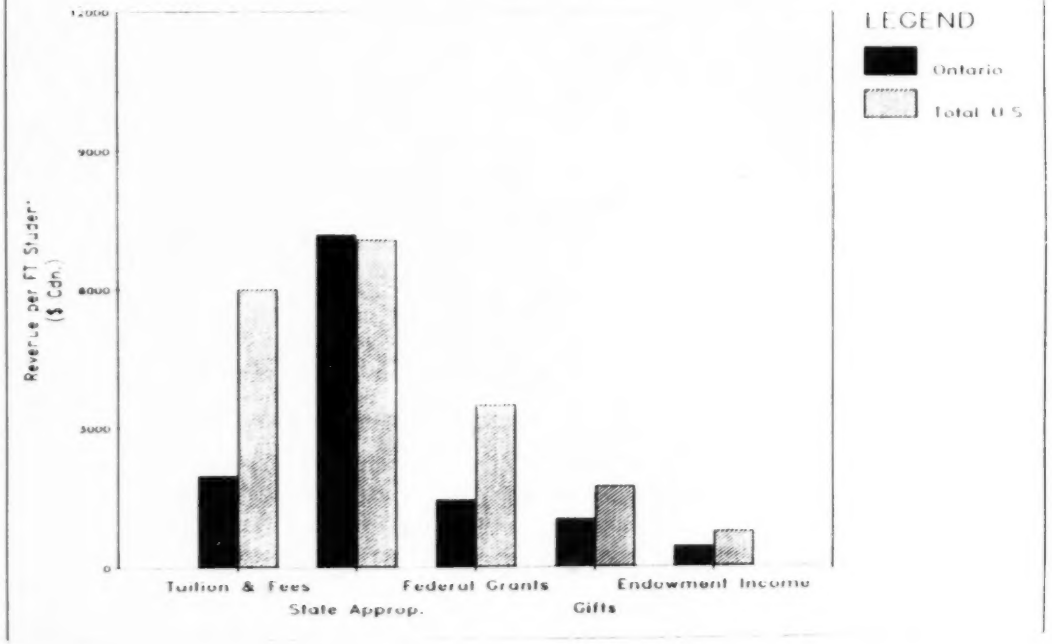


FIGURE 4
EXPENDITURE PER FULL-TIME ENROLMENT
PUBLIC DOCTORAL LEVEL UNIVERSITIES
1985-86

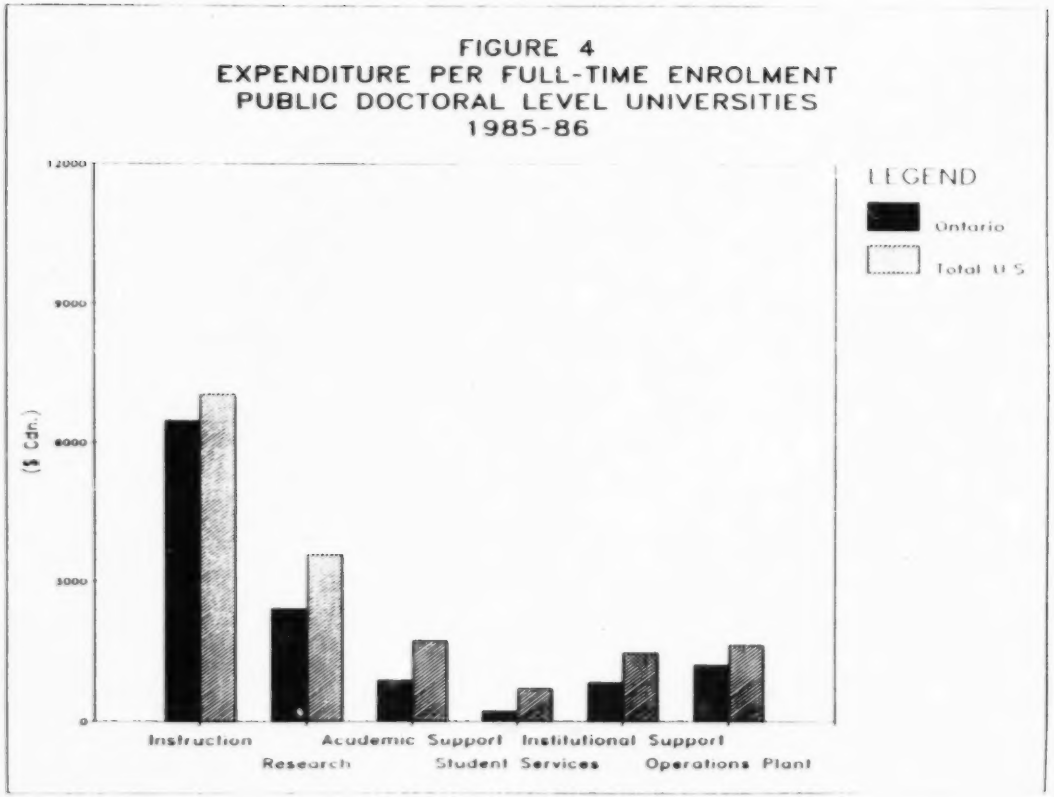


FIGURE 5
EXPENDITURE PER FULL-TIME ENROLMENT
PRIVATE DOCTORAL LEVEL UNIVERSITIES
1985-86

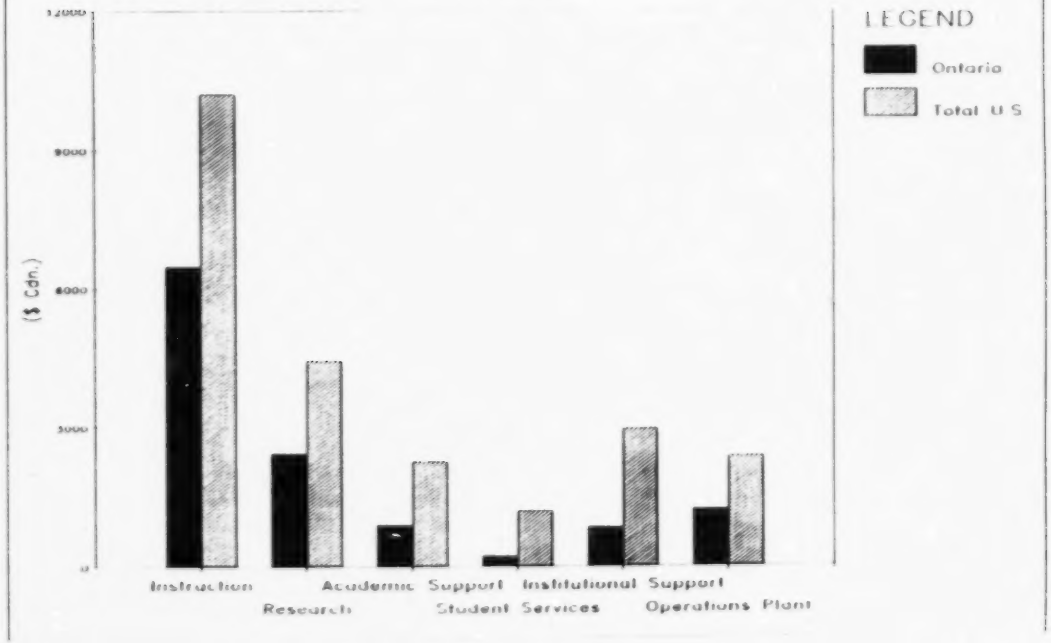


FIGURE 6
EXPENDITURE PER FULL-TIME ENROLMENT
PUBLIC & PRIVATE DOCTORAL LEVEL UNIVERSITIES
1985-86

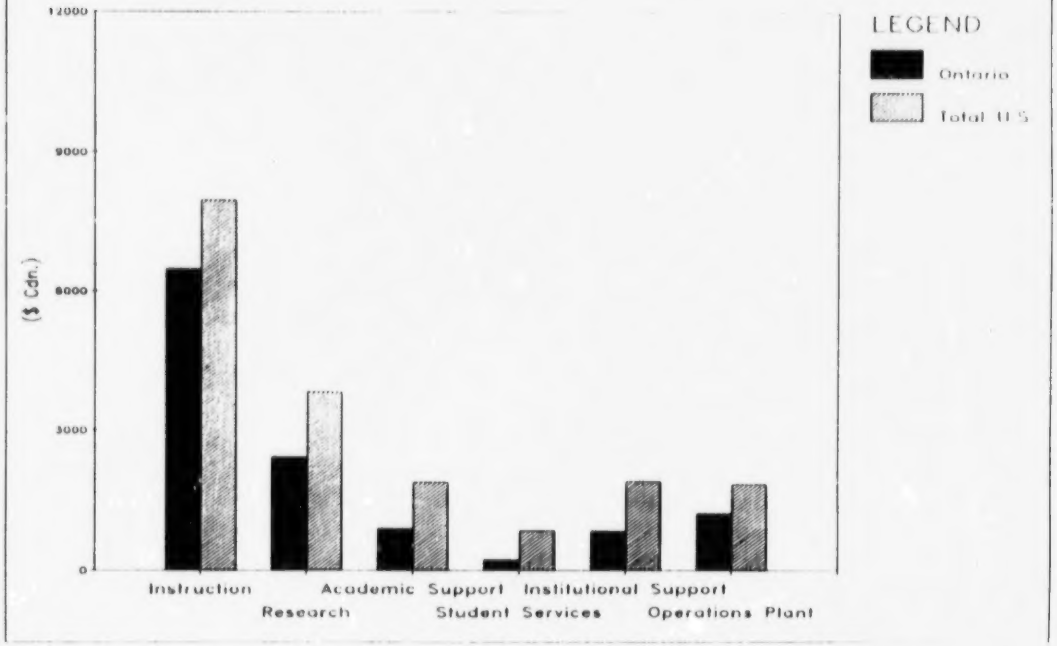


Figure 7
PERCENTAGE CHANGE IN APPROPRIATIONS PER STUDENT
STATE & PROVINCIAL FUNDS
1982-83 to 1986-87
(Constant Dollars)

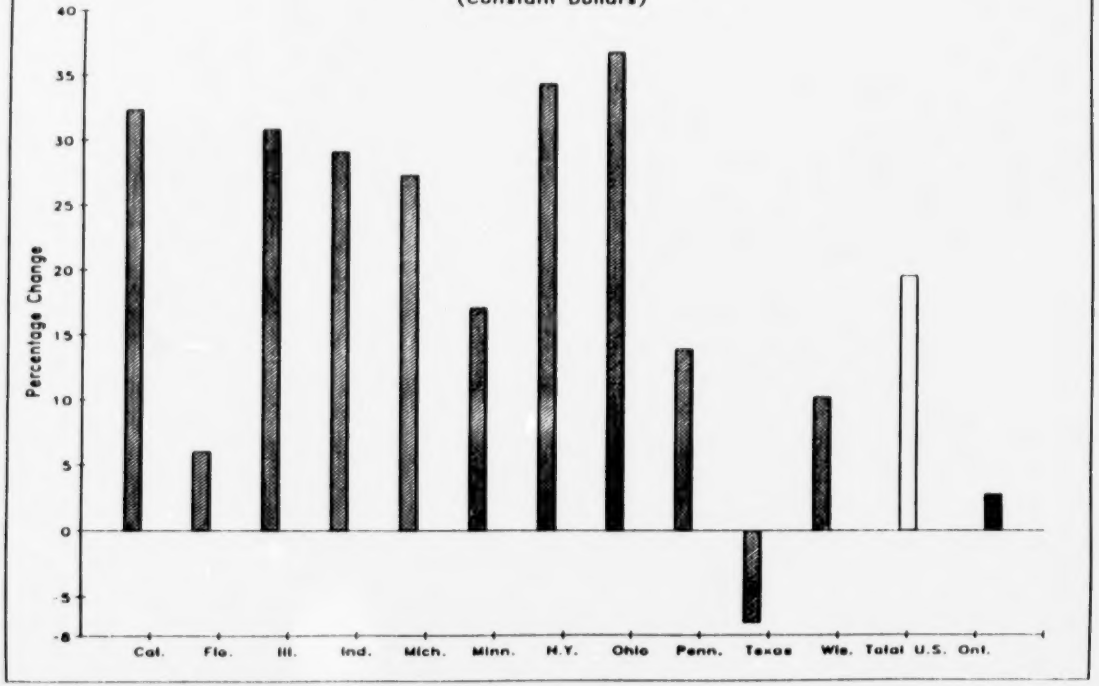


TABLE 1
REVENUE PER FULL-TIME ENROLMENT AT
DOCTORAL LEVEL UNIVERSITIES, 1985-86
($ Cdn)

	Tuition & Fees per FT Student	State Grants per FT Student	Federal Grants per FT Student	Gifts Per FT Student	Endowment Income per FT Student	Total per FT Student
U.S. PUBLIC						
CALIFORNIA	3,053	13,803	5,002	1,539	445	23,841
FLORIDA	1,868	11,629	2,399	1,548	0	17,443
ILLINOIS	2,688	9,282	2,129	846	36	14,980
INDIANA	3,533	6,600	1,741	869	92	12,834
MICHIGAN	4,837	9,393	3,648	1,582	254	19,715
MINNESOTA	4,226	12,458	4,992	3,493	708	25,877
NEW YORK	2,548	9,748	1,818	737	98	14,949
OHIO	3,954	6,142	1,188	682	181	12,147
PENNSYLVANIA	6,599	6,696	2,852	1,334	671	18,154
TEXAS	3,318	13,145	2,048	1,568	1,172	21,251
WISCONSIN	3,481	8,644	4,258	1,473	142	17,998
TOTAL	3,624	9,707	2,820	1,277	335	17,764
TOTAL - ALL U.S.	3,402	9,668	2,772	1,139	258	17,239
U.S. PRIVATE						
CALIFORNIA	16,119	2	10,945	3,909	2,104	33,078
FLORIDA	10,445	564	2,764	1,932	328	16,031
ILLINOIS	14,608	296	5,928	3,622	2,704	27,158
MICHIGAN	10,629	951	706	2,408	62	14,756
NEW YORK	13,264	692	4,274	2,071	1,496	21,798
OHIO	10,305	616	6,537	2,776	1,575	21,808
PENNSYLVANIA	10,979	3,730	4,607	2,446	1,024	22,787
TEXAS	8,125	0	950	1,836	4,145	15,056
WISCONSIN	10,076	0	561	529	365	11,531
TOTAL	12,823	1,160	5,240	2,633	1,728	23,584
TOTAL - ALL U.S.	12,397	774	5,316	3,194	2,024	23,705
U.S. PUBLIC & PRIVATE						
CALIFORNIA	6,900	9,740	6,752	2,237	933	26,560
FLORIDA	4,270	8,530	2,501	1,655	92	17,048
ILLINOIS	5,966	6,811	3,174	1,609	769	18,329
INDIANA	3,533	6,600	1,993	1,187	335	13,648
MICHIGAN	5,164	8,916	3,482	1,629	243	19,435
MINNESOTA	4,226	12,458	4,992	3,493	708	25,877
NEW YORK	10,030	3,425	3,533	1,669	1,074	19,731
OHIO	4,570	5,606	1,707	885	316	13,084
PENNSYLVANIA	9,062	5,029	3,839	1,959	870	20,758
TEXAS	4,504	9,902	1,777	1,634	1,906	19,723
WISCONSIN	4,387	7,456	3,750	1,343	173	17,109
TOTAL	6,381	7,146	3,545	1,683	753	19,508
TOTAL - ALL U.S.	6,013	7,086	3,511	1,735	771	19,116
ONTARIO						
CARLETON	1,878	5,481	887	379	149	8,775
GUELPH	1,902	8,066	1,704	668	389	12,728
MCMASTER	1,744	7,276	2,243	2,765	661	14,689
OTTAWA	1,816	8,097	1,403	929	176	12,421
QUEENS	1,583	7,623	1,950	1,292	763	13,210
TORONTO	2,153	8,332	1,982	1,322	869	14,658
WATERLOO	2,071	7,644	1,729	1,380	271	13,095
WESTERN	1,877	6,581	1,268	1,045	429	11,200
WINDSOR	2,136	6,655	574	137	219	9,721
YORK	2,222	5,506	457	210	101	8,495
TOTAL - ONTARIO	1,978	7,200	1,459	1,040	455	12,132

TABLE 2
INDEX OF REVENUE PER FULL-TIME ENROLMENT
AT DOCTORAL LEVEL UNIVERSITIES, 1985-86
(Ontario = 100)

	Tuition & Fees per FT Student	State Grants per FT Student	Federal Grants per FT Student	Gifts Per FT Student	Endowment Income per FT Student	Total per FT Student
U.S. PUBLIC						
CALIFORNIA	154.4	191.7	342.9	148.0	97.6	196.5
FLORIDA	94.5	161.5	164.4	148.8	0.0	143.8
ILLINOIS	135.9	128.9	145.9	81.3	7.8	123.5
INDIANA	178.6	91.7	119.3	83.6	20.2	105.8
MICHIGAN	244.6	130.5	250.1	152.2	55.8	162.5
MINNESOTA	213.7	173.0	342.2	335.9	155.5	213.3
NEW YORK	128.8	135.4	124.6	70.9	21.5	123.2
OHIO	199.9	85.3	81.4	65.6	39.7	100.1
PENNSYLVANIA	333.7	93.0	195.5	128.3	147.4	149.6
TEXAS	167.8	182.6	140.4	150.8	257.3	175.2
WISCONSIN	176.0	120.0	291.9	141.6	31.2	148.3
TOTAL	183.3	134.8	193.3	122.8	73.7	146.4
TOTAL - ALL U.S.	172.0	134.3	190.0	109.5	56.6	142.1
U.S. PRIVATE						
CALIFORNIA	815.1	0.0	750.2	375.9	461.9	272.7
FLORIDA	528.2	7.8	189.4	185.8	71.9	132.1
ILLINOIS	738.7	4.1	406.4	348.3	593.7	223.9
MICHIGAN	537.5	13.2	48.4	231.6	13.5	121.6
NEW YORK	670.7	9.6	293.0	199.2	328.4	179.7
OHIO	521.1	8.6	448.1	266.9	345.8	179.8
PENNSYLVANIA	555.2	51.8	315.8	235.2	224.9	187.8
TEXAS	410.8	0.0	65.1	176.6	910.1	124.1
WISCONSIN	509.5	0.0	38.4	50.9	80.1	95.0
TOTAL	648.4	16.1	359.2	253.2	379.5	194.4
TOTAL - ALL U.S.	626.9	10.7	364.4	307.1	444.5	195.4
U.S. PUBLIC & PRIVATE						
CALIFORNIA	348.9	135.3	462.8	215.1	204.9	218.9
FLORIDA	215.9	118.5	171.4	159.2	20.1	140.5
ILLINOIS	301.7	94.6	217.5	154.8	168.9	151.1
INDIANA	178.6	91.7	136.6	114.2	73.6	124.2
MICHIGAN	261.2	123.8	238.7	156.7	53.4	160.2
MINNESOTA	213.7	173.0	342.2	335.9	155.5	213.3
NEW YORK	507.2	47.6	242.2	160.5	235.8	162.6
OHIO	231.1	77.9	117.0	85.1	69.4	107.8
PENNSYLVANIA	458.2	69.8	263.1	188.4	191.0	171.1
TEXAS	227.7	137.5	121.8	157.2	418.4	162.6
WISCONSIN	221.9	103.5	257.0	129.2	37.9	141.0
TOTAL	322.7	99.2	243.0	161.9	165.3	160.8
TOTAL - ALL U.S.	304.1	98.4	240.6	166.9	169.2	157.6
ONTARIO						
CARLETON	95.0	76.1	60.8	36.5	32.8	72.3
GUELPH	96.2	112.0	116.9	64.3	85.6	104.9
MCMASTER	88.2	101.1	153.7	265.9	145.2	121.1
OTTAWA	91.8	112.5	96.2	89.3	38.6	102.4
QUEENS	80.0	105.9	133.6	124.3	167.6	108.9
TORONTO	108.9	115.7	135.8	127.1	190.8	120.8
WATERLOO	104.7	106.2	118.5	132.7	59.6	107.9
WESTERN	94.9	91.4	86.9	100.5	94.2	92.3
WINDSOR	108.0	92.4	39.3	13.2	48.1	80.1
YORK	112.4	76.5	31.3	20.1	22.2	70.0
TOTAL - ONTARIO	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3

EDUCATIONAL AND GENERAL REVENUE PER FULL-TIME HEADCOUNT
1984-85 ($ Cdn.)

Institution Name	State & Local Appropriations Per FT Student	Tuition & Fees Per FT Student	Endowment Income Per FT Student	Gov't Grants & Contracts/ FT Student	Pvt Gifts & Contracts/ FT Student	Total Per FT Student
U Toronto	$7,740	$2,042	$808	$2,124	$1,127	$13,840
U California - Los Angeles	15,382	3,891	452	6,756	2,212	28,693
U Florida - Gainesville	11,523	1,453	0	3,448	2,112	18,537
U Illinois - Urbana	9,285	2,405	101	4,359	1,488	17,638
U Washington - Seattle	8,153	3,249	188	8,634	1,752	21,976
U Wisconsin - Madison	8,206	3,165	196	5,176	1,716	18,460
U Minnesota - Minneapolis	9,849	3,318	612	4,417	2,663	20,859
Ohio State U - Columbus	7,359	3,627	210	2,534	1,214	14,944
U Michigan - Ann Arbor	7,757	6,100	560	5,736	2,048	22,201
U.S. Institution Average	9,689	3,401	290	5,133	1,901	20,413

TABLE 4

EDUCATIONAL AND GENERAL REVENUE PER FULL-TIME HEADCOUNT
1984-85 ($ Cdn.)

Institution Name	State & Local Appropriations Per FT Student	Tuition & Fees Per FT Student	Endowment Income Per FT Student	Gov't Grants & Contracts/ FT Student	Pvt Gifts & Contracts/ FT Student	Total Per FT Student
Queen's U	$7,322	$1,532	$743	$2,042	$1,028	$12,666
Colorado State U	4,779	3,552	338	3,245	573	12,487
U Maine - Orono	4,188	2,671	131	2,531	729	10,249
U New Hampshire	3,190	5,093	183	2,962	455	11,883
U Rhode Island	7,384	3,736	0	3,910	395	15,424
Clemson U (S. Carolina)	10,263	3,124	35	1,225	1,003	15,649
U Utah	9,049	2,325	357	5,467	1,224	18,421
Washington State U	8,920	1,839	40	2,872	816	14,488
U Virginia	9,681	4,074	890	3,857	1,459	19,961
U Connecticut	7,549	3,200	33	1,782	870	13,433
U.S. Institutions Average	7,222	3,290	223	3,095	836	14,666
Georgetown University	0	14,908	701	4,178	3,296	23,083
Univ of California @ Irvine	13,084	3,044	390	5,261	1,157	22,936
University of Miami	1,119	11,817	586	7,936	2,870	24,329
Northwestern University	0	14,342	2,662	6,399	2,332	25,735
Univ of California @ Davis	18,258	2,924	426	4,813	1,296	27,718
Cornell U- Endowed Colleges	550	16,275	3,945	9,584	4,174	34,529
U.S. Institutions Average	5,502	10,552	1,452	6,362	2,521	26,388

TABLE 5

EDUCATIONAL AND GENERAL REVENUE PER FULL-TIME HEADCOUNT
1984-85 (Cdn $)

Institution Name	State & Local Appropriations Per FT Student	Tuition & Fees Per FT Student	Endowment Income Per FT Student	Gov't Grants & Contracts/ FT Student	Pvt Gifts & Contracts/ FT Student	Total Per FT Student
Wilfrid Laurier U	$5,220	$1,689	$317	$136	$287	$7,649
Public						
U Southern Colorado	3,350	2,348	0	2,075	0	7,773
U Colorado @ Denver	3,909	2,765	0	686	262	7,622
U Southern Maine	6,484	2,787	11	2,237	108	11,626
U Maryland - Baltimore County	5,767	2,372	2	1,155	182	9,477
U Southeastern Massachusetts	6,905	1,641	0	1,050	420	10,018
SUNY @ Oswego	6,860	2,112	0	770	115	9,857
Average	5,546	2,338	2	1,329	181	9,396
Private						
Manhattan College	454	7,739	75	674	823	9,764
Fairleigh Dickinson U	406	11,918	160	2,851	573	15,908
U San Diego	0	10,443	0	752	592	11,787
Duquesne U	0	7,749	87	790	916	9,541
U Hartford	207	11,680	219	659	575	13,340
U Santa Clara	0	9,556	890	1,109	1,312	12,867
Seton Hall U	1,620	9,981	184	837	483	13,105
Average	384	9,867	231	1,096	753	12,330
U.S. Institution Average	2,766	6,392	125	1,203	489	10,976

TABLE 6

EDUCATIONAL AND GENERAL REVENUE PER FULL-TIME HEADCOUNT
1984-85 ($ Cdn.)

Institution Name	State & Local Appropriations Per FT Student	Tuition & Fees Per FT Student	Endowment Income Per FT Student	Gov't Grants & Contracts/ FT Student	Pvt Gifts & Contracts/ FT Student	Total Per FT Student
Queen's	$7,322	$1,532	$743	$2,042	$1,028	$12,666
Stanford U	0	13,242	5,157	30,239	8,730	57,369
Columbia U	1,091	14,028	6,342	17,645	13,266	52,372
Harvard U	0	16,940	11,649	12,435	11,728	52,751
Yale U	0	11,953	5,395	15,778	4,732	37,860
Princeton U	0	13,260	11,455	7,567	7,256	39,538
U.S. Institutions Average	218	13,885	8,000	16,733	9,142	47,978

TABLE 7

EDUCATIONAL AND GENERAL EXPENDITURES PER FULL-TIME HEADCOUNT
RESEARCH DOCTORAL LEVEL UNIVERSITIES
PUBLIC INSTITUTIONS
1985-86 ($Cdn)

	Instruction	Research	Academic Support	Student Services	Admin Support	Plant Operations	TOTAL
CALIFORNIA	$9,635	$6,048	$3,290	$1,485	$2,255	$1,765	$24,478
FLORIDA	7,534	4,362	1,126	521	2,248	1,443	17,233
ILLINOIS	6,078	2,663	1,977	638	1,598	1,719	14,674
INDIANA	5,637	2,030	1,331	513	1,323	1,556	12,389
MICHIGAN	7,808	3,856	1,790	874	1,374	2,305	18,008
MINNESOTA	10,034	6,106	2,804	1,142	1,781	2,382	24,250
NEW YORK	6,521	1,130	937	573	2,235	2,214	13,611
OHIO	6,178	1,252	1,319	597	877	1,056	11,280
PENNSYLVANIA	7,484	3,240	2,121	790	1,988	1,787	17,410
TEXAS	8,394	4,191	1,498	626	2,341	2,538	19,588
WISCONSIN	6,328	5,905	1,057	373	869	1,880	16,412
TOTAL - 11 States	7,395	3,554	1,836	782	1,683	1,786	17,035
TOTAL - All States	7,055	3,598	1,744	716	1,493	1,645	16,251

Note: Excludes expenditures for student aid, public service, and mandatory transfers.

TABLE 8

EDUCATIONAL AND GENERAL EXPENDITURES PER FULL-TIME HEADCOUNT
RESEARCH DOCTORAL LEVEL UNIVERSITIES
PRIVATE INSTITUTIONS
1985-86 ($Cdn)

	Instruction	Research	Academic Support	Student Services	Admin Support	Plant Operations	TOTAL
CALIFORNIA	$12,815	$8,163	$3,342	$1,495	$3,466	$2,898	$32,179
FLORIDA	8,758	2,744	1,281	903	1,346	1,182	16,215
ILLINOIS	13,441	4,936	1,996	1,057	3,314	2,934	27,678
MICHIGAN	5,722	229	2,626	924	2,987	1,391	13,880
NEW YORK	8,990	3,724	1,756	1,215	3,031	2,367	21,083
OHIO	7,774	5,215	2,501	916	1,785	2,072	20,264
PENNSYLVANIA	9,042	4,372	2,144	1,016	2,403	2,185	21,163
TEXAS	6,543	876	1,524	894	2,125	1,503	13,465
WISCONSIN	5,726	201	1,905	861	1,675	1,073	11,441
TOTAL - 9 States	9,695	4,361	2,116	1,132	2,738	2,280	22,323
TOTAL - All States	10,211	4,432	2,259	1,200	2,966	2,371	23,438

Note: Excludes expenditures for student aid, public service, and mandatory transfers.

TABLE 9

EDUCATIONAL AND GENERAL EXPENDITURES PER FULL-TIME HEADCOUNT
RESEARCH DOCTORAL LEVEL UNIVERSITIES
PUBLIC & PRIVATE INSTITUTIONS
1985-86 ($Cdn)

	Instruction	Research	Academic Support	Student Services	Admin Support	Plant Operations	TOTAL
CALIFORNIA	$10,571	$6,671	$3,305	$1,488	$2,611	$2,098	$26,745
FLORIDA	7,876	3,909	1,169	628	1,995	1,370	16,948
ILLINOIS	8,103	3,288	1,982	753	2,070	2,053	18,250
INDIANA	5,637	2,030	1,331	513	1,323	1,556	12,389
MICHIGAN	7,690	3,651	1,837	877	1,466	2,253	17,775
MINNESOTA	10,034	6,106	2,804	1,142	1,781	2,382	24,250
NEW YORK	8,245	2,941	1,509	1,021	2,791	2,321	18,828
OHIO	6,333	1,637	1,434	628	965	1,155	12,152
PENNSYLVANIA	8,360	3,876	2,134	917	2,221	2,011	19,520
TEXAS	7,937	3,373	1,504	692	2,288	2,282	18,077
WISCONSIN	6,245	5,121	1,174	440	980	1,769	15,729
TOTAL - 11 States	8,084	3,796	1,920	887	1,999	1,934	18,620
TOTAL - All States	7,971	3,840	1,894	856	1,920	1,856	18,337

Note: Excludes expenditures for student aid, public service, and mandatory transfers.

TABLE 10

EDUCATIONAL AND GENERAL EXPENDITURES PER FULL-TIME HEADCOUNT
RESEARCH DOCTORAL LEVEL UNIVERSITIES
ONTARIO INSTITUTIONS
1985-86 ($Cdn)

	Instruction	Research	Academic Support	Student Services	Admin Support	Plant Operations	TOTAL
CARLETON	$4,841	$1,111	$745	$203	$707	$1,029	$8,636
GUELPH	7,046	4,128	967	352	1,004	1,278	14,776
MCMASTER	7,120	5,049	991	184	1,076	1,257	15,677
OTTAWA	7,080	1,976	996	208	926	1,352	12,538
QUEENS	6,520	2,974	1,053	266	792	1,183	12,787
TORONTO	7,704	3,234	1,037	209	867	1,458	14,508
WATERLOO	6,235	2,458	920	437	1,020	1,380	12,451
WESTERN	6,091	2,108	730	187	720	957	10,793
WINDSOR	5,575	716	997	242	774	1,303	9,606
YORK	5,242	521	687	209	799	1,046	8,503
TOTAL - 10 Universities	6,487	2,440	906	239	859	1,234	12,165

Note: Excludes expenditures for student aid, public service, and mandatory transfers.

DATA SOURCES AND CONVERSION

In Ontario, financial information for 43 universities and affiliated colleges is collected each year by the Council of Finance Officers - Universities of Ontario (COFO-UO) and published by the Council of Ontario Universities in the Financial Report of Ontario Universities. Enrolment information for these same institutions is collected by the Ontario Ministry of Colleges and Universities and made available through their University Affairs Report (UAR). An additional 22 Colleges of Applied Arts and Technology are not included in these data bases.

In the United States, both financial and enrolment data are collected by the United States Department of Education in what has, until recently, been known as the Higher Education General Information Survey (HEGIS). HEGIS data have, for some years, been summarized and presented in a consistent format by the National Center for Higher Education Management Systems (NCHEMS) or made widely available through the National Data Service for Higher Education.

The financial information collected each year by COFO-UO for Ontario provides a detailed picture of universities' revenue and expenses. Financial data are published by fund, function and object of expense in a multiple matrix format. The funds specified are: operating, non-credit, ancillary enterprises, sponsored research, trust and endowment, capital, and non-expendable trust and endowment. Within the operating fund, the functions specified are: instruction and research, library, central computing, student services, administration, physical plant, and other expenses. These are broken down by objects of expense which include salaries and wages, employee benefits, library acquisitions, equipment and furniture, operational supplies and expenses, utilities, renovations, alterations and major repairs, externally contracted services, scholarships and bursaries, and various miscellaneous expenses.

Revenues are also reported by source, as well as by fund, to form yet another matrix. Sources of revenue include government grants, both provincial and federal, and grants from governments in other provinces or countries. Grants from the Ministry of Colleges and Universities in Ontario are reported according to the type of grant received. Grants and contracts from the federal government are reported according to the department or agency involved. Other sources of revenue include tuition and fees, borrowings, sales of services and products, investment income, and miscellaneous revenue. Income from donations and gifts-in-kind and from non-government grants and contracts are also reported separately by type of source (e.g. corporations, foundations, individuals).

The HEGIS survey on Financial Statistics of Institutions of Higher Education also included reporting by funds, but in this case six quite different fund categories were used: current funds, loan funds, endowment and similar funds, annuity and life income funds, plant funds, and agency funds. Within the current fund, revenues and expenses were shown as either educational and general, auxiliary enterprises, hospitals, or independent operations. It is the first of these categories, educational and general revenues and expenditures, which is most relevant to the instructional and research activities of American universities.

Within the educational and general category, revenues and expenditures are both shown in some detail. Revenues are reported according to source - tuition and fees, governmental appropriations, governmental grants and contracts, private gifts, grants and contracts, endowment income, sales and services of educational activities, and other sources. Expenditures are reported separately for instruction, research, public service, academic support, student services, institutional support, operation and maintenance of plant, scholarships and fellowships, and mandatory transfers. However, unlike the comparable Canadian data, information is not provided by object of expense (e.g. salaries, employee benefits, etc.) and it is not possible to construct a complete expenditure matrix using these data.

All of the analysis in this paper is restricted to educational and general revenue and expenditure since the main concern is with the core activities of universities - namely instruction and research. The following section demonstrates how the Ontario data, as collected by COFO-UO, have been cast within the HEGIS framework.

Each of the HEGIS categories of expenditure and revenue is identified and then the locations of the relevant COFO-UO data are specified. In effect, a "map" is constructed whereby the COFO-UO detailed categories are located on the HEGIS outline. This establishes a direct link between the HEGIS and COFO-UO data bases. For example, the HEGIS category entitled "Academic Support" will include all of the COFO-UO operating fund expenses for the function entitled "Library", all of the central computing costs for "Academic" purposes, and all of the Trust and Endowment fund expenses for library acquisitions.

The following list identifies each HEGIS category of educational and general revenue and expenditure and indicates which COFO-UO category should be included therein.

Educational and General Expenditures

Figures for the Ontario Universities are derived from the COFO-UO Financial Report, in the following manner:

Instruction:	Table 4	Instruction & Research, Subtotal (col 3), Total (row 23)
	Table 3	Other (Non-Credit) (col 2), Total (row 23)
	Table 3	Trust & Endowment (col 6), (Total, row 23 - Library Acquisitions, row 07 - Scholarships, row 17)/2
Research:	Table 3	Sponsored Research (col 5), Total (row 23)
	Table 3	Trust & Endowment (col 6), (Total, row 23 - Library Acquisitions, row 07 - Scholarships, row 17)/2
Academic Support:	Table 4	Library (col 4), Total (row 23)
	Table 4	Central Computing Costs (row 24), Academic
	Table 3	Trust & Endowment (col 6), Library Acquisitions (row 07)
Student Services:	Table 4	Student Services (col 6), (Total, row 23 - Scholarships, row 17)
Institutional Support:	Table 4	Administration (col 7), Total (row 23)
	Table 4	Other (col 9), Total (row 23)
	Table 4	Central Computing Costs (row 24), Non-Academic
Plant Operations & Maintenance:	Table 4	Physical Plant (col 8), Total (row 23)

These figures are summed to derive the figure for Total E & G minus Student Aid, Public Service and Mandatory Transfers.

Educational and General Revenue

Provincial/State Appropriations:	Table 2	Total Ontario Grants (row 5) for Operating (col 1) and Other Non-Credit (col 2)
Federal Grants & Contracts:	Table 2	Federal Government Grants and Contracts (row 6) for Operating (col 1), Other Non-Credit (col 2), Sponsored Research (col 5), Trust and Endowment (col 6)
Tuition & Fees:	Table 2	Tuition Credit (row 9) for Operating (col 1) and Other Non-Credit (col 2)
	Table 2	Tuition Non-Credit (row 10) for Operating (col 1) and Other Non-Credit (col 2)
	Table 2	Miscellaneous Fees (row 11) for Operating (col 1) and Other Non-Credit (col 2)
Gifts, Grants & Contracts:	Table 2	Other Government Grants and Contracts (row 8) for Operating (col 1), Sponsored Research (col 5) and Trust and Endowment (col 6)
	Table 2	Gifts, Donations and Non-Government Grants (row 13) for Operating col 1), Other Non-Credit (col 2), Sponsored Research (col 5), Trust and Endowment (col 6)
Endowment Income:	Table 2	Investment Income (row 15) for Operating (col 1), Other Non-Credit (col 2), Sponsored Research (col 5), Trust and Endowment (col 6)

REVENUE AND ADDITIONS BY SOURCE AND TYPE OF FUND
FOR THE FISCAL YEAR ENDED 30 APRIL 1986
(IN THOUSANDS OF DOLLARS)

TABLE 2

INSTITUTION: TOTAL FOR UNIVERSITIES

SOURCE \ TYPE OF FUND	GENERAL EXPENDABLE FUNDS				RESTRICTED EXPENDABLE FUNDS			TOTAL EXPENDABLE	NON-EXPENDABLE TRUST AND ENDOWMENT
	OPERATING (1)	OTHER (NON-CREDIT) (2)	ANCILLARY ENTERPRISES (3)	SUBTOTAL (4)	SPONSORED RESEARCH (5)	TRUST AND ENDOWMENT (6)	CAPITAL (7)	(8)	(9)
1. GOVERNMENT GRANTS AND CONTRACTS									
(A) ONTARIO									
(I) FORMULA	1,199,999	0	0	1,199,999	0	0	0	1,199,999	0
(II) EXTRA FORMULA	20,409	0	0	20,409	0	0	0	20,409	0
(III) MCU GRANTS	17,535	1,343	0	18,878	289	27	39,086	58,280	0
(IV) OTHER	10,141	5,797	10	15,948	43,305	5,137	24,654	89,044	0
TOTAL ONTARIO GRANTS	1,248,084	7,140	10	1,255,234	43,594	5,164	63,740	1,367,732	0
(B) FEDERAL	844	2,076	140	3,060	214,243	8,757	1,925	227,985	1,225
(C) MUNICIPAL	291	0	0	291	379	0	0	670	0
(D) OTHER	545	0	0	545	3,436	98	0	4,079	0
2. FEES (A) TUITION CREDIT	299,742	0	0	299,742	0	0	0	299,742	0
(B) TUITION NON-CREDIT	0	20,462	0	20,462	0	0	0	20,462	0
(C) MISCELLANEOUS	21,117	2,508	65,568	89,193	0	0	0	89,193	0
3. BORROWINGS	0	0	0	0	0	0	3,820	3,820	0
4. GIFTS, DONATIONS, AND NON-GOVT GRANTS	1,094	802	67	1,963	80,619	66,228	5,880	154,690	10,896
5. SALES OF SERVICE AND PRODUCTS	0	0	162,245	162,245	0	0	0	162,245	0
6. INVESTMENT INCOME	24,268	379	699	25,346	4,184	36,074	3,521	69,125	5,976
7. MISCELLANEOUS	17,469	485	908	18,862	3,249	4,018	2,361	28,490	7,313
8. INTERFUND TRANSFERS	413	-162	-808	-557	7,531	-24,021	13,426	-3,621	3,621
TOTAL	1,613,867	33,690	228,829	1,876,386	357,235	96,318	84,673	2,424,612	29,031

PROV/STATE APPROPRIATIONS

FEDERAL GRANTS & CONTRACTS

TUITION & FEES

GIFTS, GRANTS & CONTRACTS

ENDOWMENT INCOME

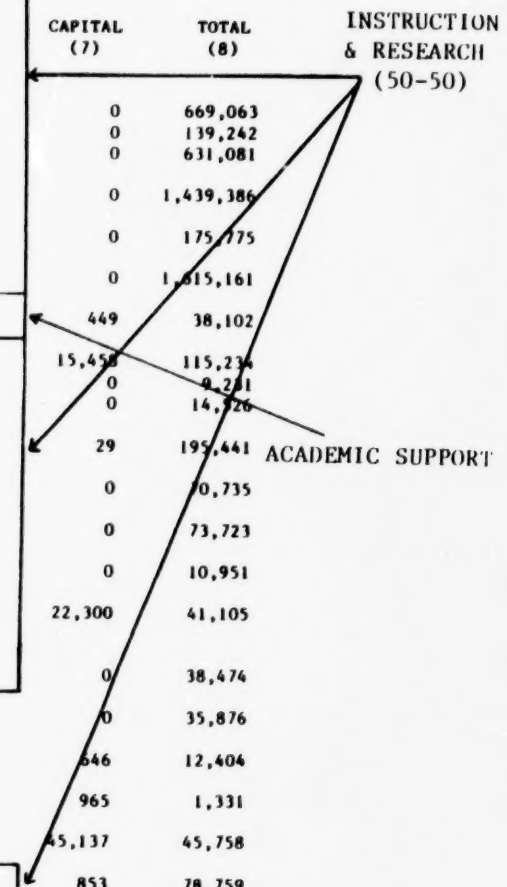
EXPENSES (ALL EXPENDABLE FUNDS) BY OBJECT AND TYPE OF FUND
FOR THE FISCAL YEAR ENDED 30 APRIL 1986
(IN THOUSANDS OF DOLLARS)

TABLE 3

INSTITUTION: TOTAL FOR UNIVERSITIES

TYPE OF FUND	GENERAL FUNDS				RESTRICTED FUNDS				
OBJECT OF EXPENSE	OPERATING (1)	OTHER (NON-CREDIT) (2)	ANCILLARY ENTERPRISES (3)	SUBTOTAL (4)	SPONSORED RESEARCH (5)	TRUST AND ENDOWMENT (6)	CAPITAL (7)	TOTAL (8)
1. SALARIES AND WAGES								
(A) ACADEMIC RANKS	617,814	5,275	0	623,089	35,881	10,093	0	669,063
(B) OTHER INSTRUCTION AND RESEARCH	64,473	3,290	0	67,763	67,661	3,818	0	139,242
(C) OTHER SALARIES AND WAGES	458,553	12,007	61,019	531,579	84,572	14,930	0	631,081
TOTAL SALARIES AND WAGES	1,140,840	20,572	61,019	1,222,431	188,114	28,841	0	1,439,386
2. EMPLOYEE BENEFITS	148,812	2,289	6,795	157,896	14,666	3,213	0	175,775
TOTAL SALARIES AND BENEFITS	1,289,652	22,861	67,814	1,380,327	202,780	32,054	0	1,615,161
3. LIBRARY ACQUISITIONS	34,819	0	0	34,819	1,636	1,198	449	38,102
4. EQUIPMENT & FURNITURE (A) PURCHASE	48,734	716	5,250	54,700	37,478	7,598	15,458	115,234
(B) RENTAL	7,077	60	675	7,812	856	563	0	9,281
(C) MAINTENANCE	11,760	60	1,036	12,856	1,541	129	0	14,526
5. OPERATIONAL SUPPLIES AND EXPENSES	83,768	4,878	23,283	111,929	72,271	11,212	29	195,441
6. COST OF GOODS SOLD	0	0	70,735	70,735	0	0	0	70,735
7. UTILITIES	56,660	366	15,494	72,520	1,184	19	0	73,723
8. MUNICIPAL TAXES	9,686	0	1,265	10,951	0	0	0	10,951
9. RENOVATIONS, ALTERATIONS AND MAJOR REPAIRS	13,187	0	4,277	17,464	242	1,099	22,300	41,105
10. EXTERNALLY CONTRACTED SERVICES	18,067	191	19,866	38,124	274	76	0	38,474
11. SCHOLARSHIPS, BURSARIES, ETC.	13,330	22	0	13,352	1,998	20,526	0	35,876
12. PRINCIPAL AND INTEREST REPAYMENTS	699	0	11,059	11,758	0	0	646	12,404
13. LAND AND SITE SERVICES	93	0	273	366	0	0	965	1,331
14. BUILDINGS	0	0	621	621	0	0	45,137	45,758
15. MISCELLANEOUS	40,630	2,611	3,384	46,625	24,954	6,327	853	78,759
16. INTERNAL COST ALLOCATIONS	-6,129	422	1,562	-4,145	3,292	1,221	-368	0
TOTAL	1,622,033	32,187	226,594	1,880,814	348,506	82,022	85,469	2,396,811

INSTRUCTION
RESEARCH



ACTUAL OPERATING EXPENSES BY OBJECT AND FUNCTIONAL AREA
FOR THE FISCAL YEAR ENDED 30 APRIL 1986
(IN THOUSANDS OF DOLLARS)

TABLE 4

INSTITUTION: TOTAL FOR UNIVERSITIES

FUNCTIONAL AREA / OBJECT OF EXPENSE	INSTRUCTION AND RESEARCH: ALL EXCL. MED (1)	INSTRUCTION AND RESEARCH: MEDICINE (2)	INSTRUCTION AND RESEARCH: SUB-TOTAL (3)	ACADEMIC SUPPORT: LIBRARY (4)	ACADEMIC SUPPORT: CENTRAL COMPUTING (5)	STUDENT SERVICES (6)	INSTITUTIONAL SUPPORT: ADMIN. (7)	PLANT OPERATIONS: PHYSICAL PLANT (8)	INSTITUTIONAL SUPPORT: OTHER (9)	TOTAL (10)
1. SALARIES AND WAGES										
(A) ACADEMIC RANKS	573,020	44,794	617,814	0	0	0	0	0	0	617,814
(B) OTHER INSTRUCTION AND RESEARCH	62,498	1,975	64,473	0	0	0	0	0	0	64,473
(C) OTHER SALARIES AND WAGES	140,538	25,096	165,634	63,149	31,889	28,492	73,312	85,607	10,470	458,553
TOTAL SALARIES AND WAGES	776,056	71,865	847,921	63,149	31,889	28,492	73,312	85,607	10,470	1,140,840
2. EMPLOYEE BENEFITS	96,603	12,590	109,193	8,583	4,185	3,262	10,069	12,238	1,282	148,812
TOTAL SALARIES AND BENEFITS	872,659	84,455	957,114	71,732	36,074	31,754	83,381	97,845	11,752	1,289,652
3. LIBRARY ACQUISITIONS	0	0	0	34,819	0	0	0	0	0	34,819
4. EQUIPMENT & FURNITURE (A) PURCHASE	24,824	1,698	26,522	2,902	11,667	1,126	2,820	2,150	1,547	48,734
(B) RENTAL	1,274	324	1,598	581	3,484	113	760	279	262	7,077
(C) MAINTENANCE	3,546	164	3,710	770	5,156	124	849	917	234	11,760
5. OPERATIONAL SUPPLIES AND EXPENSES	43,777	2,234	46,011	3,172	4,310	4,701	11,510	10,329	3,735	83,768
6. COST OF GOODS SOLD	0	0	0	0	0	0	0	0	0	0
7. UTILITIES	0	0	0	0	0	0	0	56,660	0	56,660
8. MUNICIPAL TAXES	0	0	0	0	0	0	0	9,686	0	9,686
9. RENOVATIONS, ALTERATIONS AND MAJOR REPAIRS	0	0	0	0	0	0	0	13,187	0	13,187
10. EXTERNALLY CONTRACTED SERVICES	660	245	905	274	195	553	587	15,304	249	18,067
11. SCHOLARSHIPS, BURSARIES, ETC.	0	0	0	0	0	13,330	0	0	0	13,330
12. PRINCIPAL AND INTEREST REPAYMENTS	53	0	53	0	0	28	146	0	472	699
13. LAND AND SITE SERVICES	0	0	0	0	0	0	0	93	0	93
14. BUILDINGS	0	0	0	0	0	0	0	0	0	0
15. MISCELLANEOUS	17,285	1,250	18,535	394	1,135	2,626	5,834	4,854	7,252	40,630
16. INTERNAL COST ALLOCATIONS	-313	-669	-982	-30	-1,507	-79	-2,975	0	-556	-6,129
TOTAL	963,765	89,701	1,053,466	114,614	60,514	54,276	102,912	211,304	24,947	1,622,033

CENTRAL COMPUTING COSTS:	
ACADEMIC	36,413
NON-ACADEMIC	24,101
TOTAL	60,514

← ACADEMIC SUPPORT

INSTITUTIONAL SUPPORT